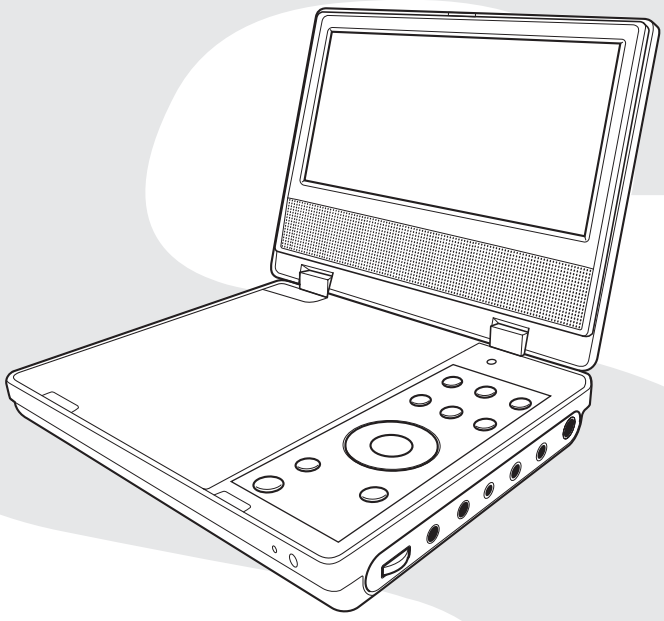
TOSHIBA

FILE No. 810-200726GR

SERVICE MANUAL

PORTABLE DVD PLAYER

SD-P1707SE



The above model is classified as a green product(*1), as indicated by the underlined serial number.
This Service Manual describes replacement parts for the green product. When repairing this green product, use the part(s) described in this manual and lead-free solder (*2).
For (*1) and (*2), see the next page.

Mar., 2007 GREEN

(*1) GREEN PRODUCT PROCUREMENT

The EC is actively promoting the WEEE & RoHS Directives that define standards for recycling and reuse of Waste Electrical and Electronic Equipment and for the Restriction of the use of certain Hazardous Substances. From July 1, 2006, the RoHS Directive will prohibit any marketing of new products containing the restricted substances.

Increasing attention is given to issues related to the global environmental. Toshiba Corporation recognizes environmental protection as a key management tasks, and is doing its utmost to enhance and improve the quality and scope of its environmental activities. In line with this, Toshiba proactively promotes Green Procurement, and seeks to purchase and use products, parts and materials that have low environmental impacts.

Green procurement of parts is not only confined to manufacture. The same green parts used in manufacture must also be used as replacement parts.

(*2) LEAD-FREE SOLDER

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

WARNING

This product is manufactured using lead free solder.

DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT !

The melting temperature of lead-free solder is higher than that of leaded solder by 86°F to 104°F (30°C to 40°C). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product — especially when soldering large components, through-hole pins, and on PCBs — as the level of heat required to melt lead-free solder is high.

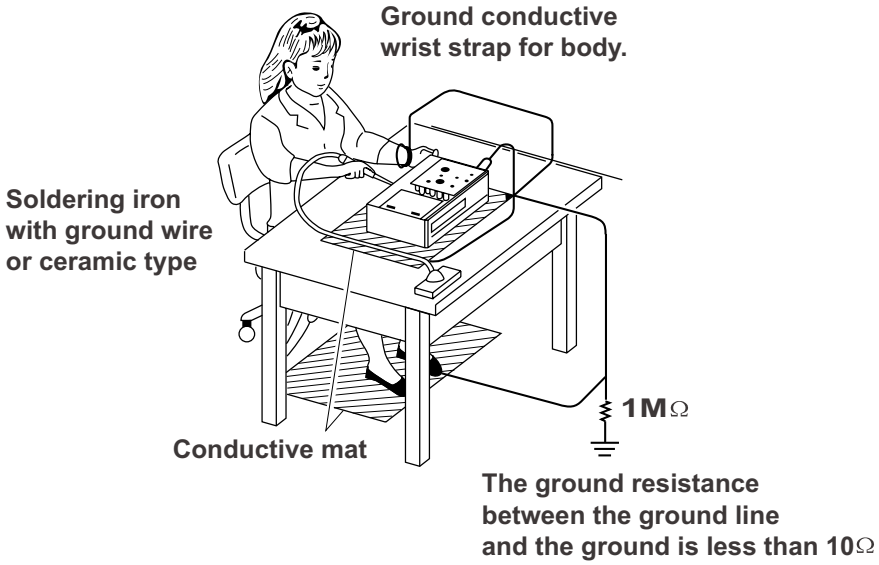
LASER BEAM CAUTION LABEL

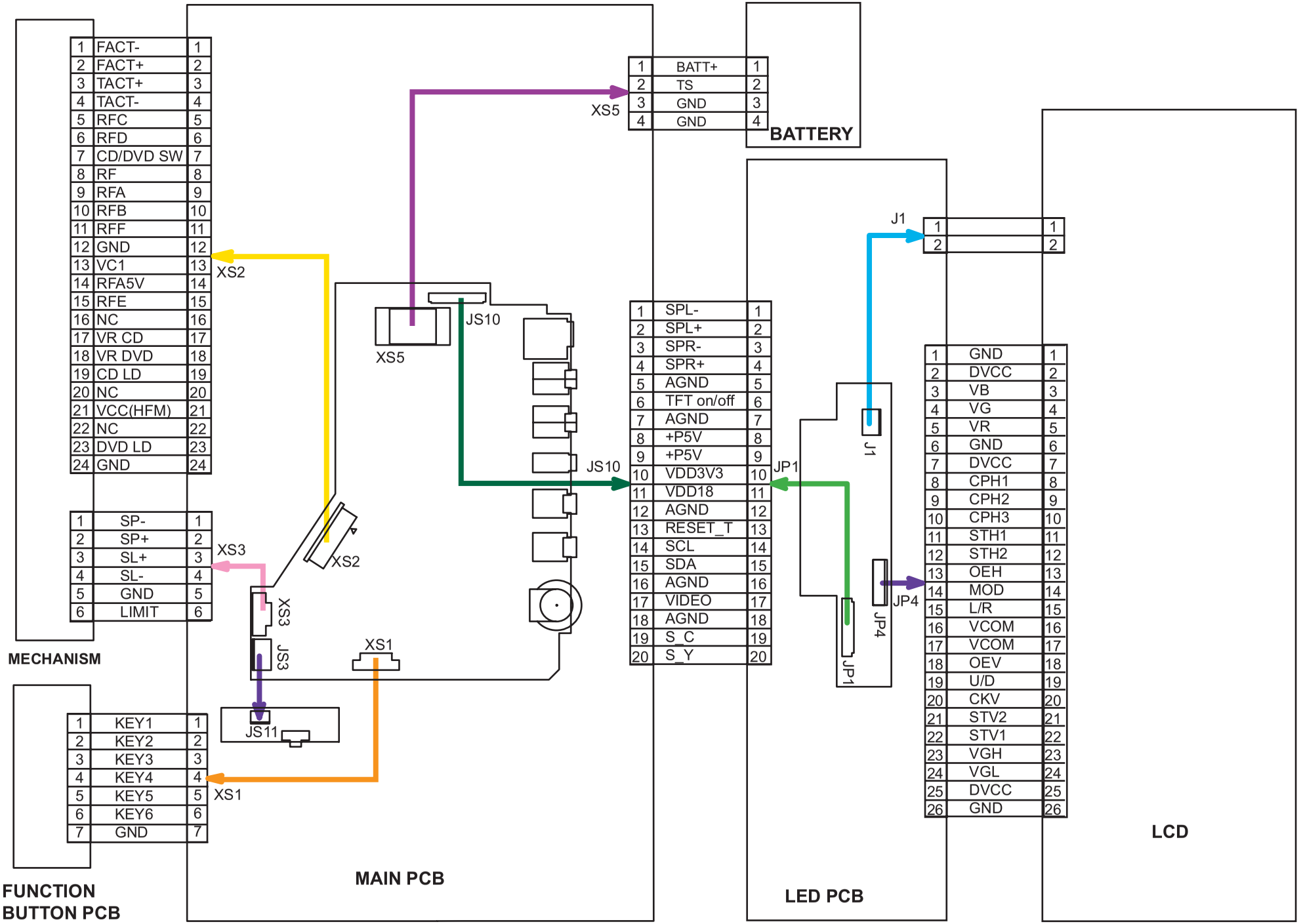
- レンズには絶対に触れないでください。
- DO NOT TOUCH THE LENS.
- LINSE NICHT BRÜHREN.
- NE PAS TOUCHER LA LENTILLE.

When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

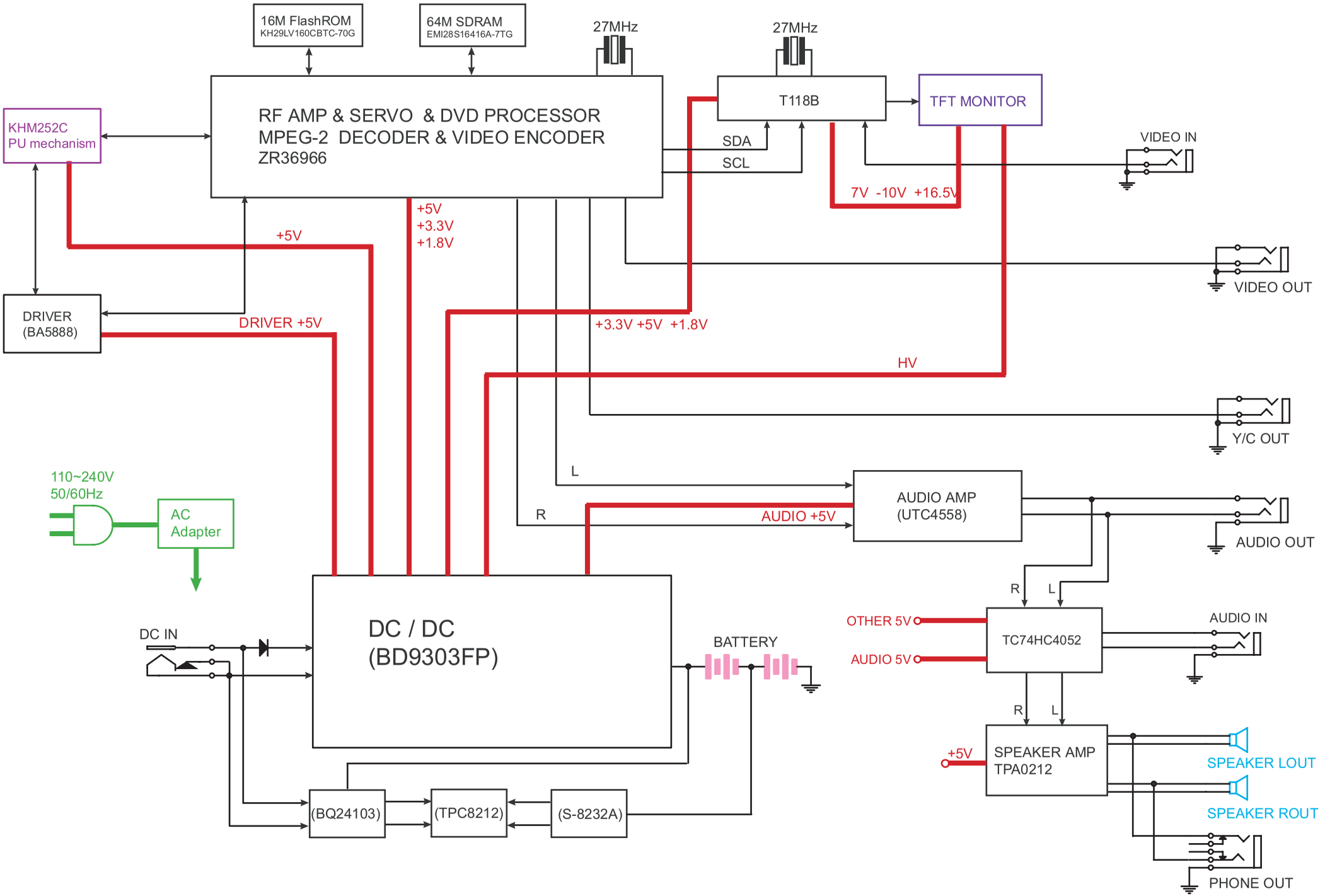
PREPARATION OF SERVICING

Pickup Head consists of a laser diode that is very susceptible to external static electricity.
Although it operates properly after replacement, if it was subject to electrostatic discharge during replacement, its life might be shortened. When replacing, use a conductive mat, soldering iron with ground wire,etc. to protect the laser diode from damage by static electricity.
And also, the LSI and IC are same as above.




1 FACT- 1
2 FACT+ 2
3 TACT+ 3
4 TACT- 4
5 RFC 5
6 RFD 6
7 CD/DVD SW 7
8 RF 8
9 RFA 9
10 RFB 10
11 RFF 11
12 GND 12
13 VC1 13
14 RFA5V 14
15 RFE 15
16 NC 16
17 VR CD 17
18 VR DVD 18
19 CD LD 19
20 NC 20
21 VCC(HFM) 21
22 NC 22
23 DVD LD 23
24 GND 24
XS2
1 SP- 1
2 SP+ 2
3 SL+ 3
4 SL- 4
5 GND 5
6 LIMIT 6
XS3
MECHANISM
1 KEY1 1
2 KEY2 2
3 KEY3 3
4 KEY4 4
5 KEY5 5
6 KEY6 6
7 GND 7
XS1
FUNCTION
BUTTON PCB
XS5
1 BATT+ 1
2 TS 2
3 GND 3
4 GND 4
BATTERY
JS10
JS3
JS11
XS1
XS2
XS3
XS5
MAIN PCB
1 SPL- 1
2 SPL+ 2
3 SPR- 3
4 SPR+ 4
5 AGND 5
6 TFT on/off 6
7 AGND 7
8 +P5V 8
9 +P5V 9
10 VDD3V3 10
11 VDD18 11
12 AGND 12
13 RESET_T 13
14 SCL 14
15 SDA 15
16 AGND 16
17 VIDEO 17
18 AGND 18
19 S_C 19
20 S_Y 20
JS10
JP1
J1
JP4
JP1
LED PCB
J1
1 1
2 2
1 GND 1
2 DVCC 2
3 VB 3
4 VG 4
5 VR 5
6 GND 6
7 DVCC 7
8 CPH1 8
9 CPH2 9
10 CPH3 10
11 STH1 11
12 STH2 12
13 OEH 13
14 MOD 14
15 L/R 15
16 VCOM 16
17 VCOM 17
18 OEV 18
19 U/D 19
20 CKV 20
21 STV2 21
22 STV1 22
23 VGH 23
24 VGL 24
25 DVCC 25
26 GND 26
JP4
LCD

OVERALL BLOCK DIAGRAM



1. Troubleshooting

1. No power when turned on.
2. The initial screen is not displayed on the LCD.
3. The DVD drive does not work.
4. The operation of the DVD player stops at initializing display.
5. Image output stops during the operation.
6. No sound or abnormal sound comes out from the speakers in the DVD player.
7. No image or sound comes out from the external output.
8. No sound comes out from the headphones.
9. No image or sound is output by external input.
10. The DVD drive does not operate with the battery.

1.1 No power when turned on.

When the power is turned on, and if the LED on the front panel does not light green, check the following items and repair the defective parts.

(1) Check the power supply cable

If the cable is not the supplied one, replace it with the supplied cable and turn on the power again.
If the power supply cable is good, the AC adapter may be defective.
If the LED does not light after replacing, check the following items.

(2) Check the AC adapter

If the AC adapter is not the supplied one, replace it with the supplied AC adapter and turn on the power.
If the AC adapter is good, the Main PCB may be defective.
If the LED does not light after replacing, check the following items.

(3) Check the Power switch

Press the POWER switch on the DVD player. If the power does not turn on, check the following:

- Check the connector of the Function button PCB in the DVD player.
  (If the connection is loose, repair the connection.)
- Replace the Function button PCB and turn on the power again.
  If the LED does not light after replacing, check the following items.

(4) Replace the main PCB

1.2 The initial screen is not displayed on the LCD.

If the initial screen is not displayed on the LCD, check the following items.

(1) Check the LED on the front

If the LED does not light, proceed to 1.1.

(2) Check the backlight

If the backlight does not light up, separate the DVD player into top assembly and bottom assembly, and check the Harness, and check the connectors for defects.

If the Harness is broken:

Replace the broken harness.

If the Harness is not broken:

Remove the LCD Mask and CD Unit and check the following:

- Check the connectors of the Harness, replace the LED PCB or the LCD Unit.
- If the connectors are good, replace the LED PCB or the LCD Unit.

(3) Check the lighting of LCD

If the LCD does not light, separate the DVD player into the top assembly and bottom assembly, and check the Harness, and check the connectors on Main PCB.

If the connector is broken:

Replace the Harness or Main PCB.

If the connector is not broken:

Remove LCD Mask and LCD unit and check the connection to the harness of the LCD unit.

- If a bad connection is found.
  Connect the Harness to LCD unit.
- Other than the above
  Replace the LCD unit or the Main PCB.

1.3 The DVD drive does not work.

When the DVD drive does not work after the power is turned on, check the following items and repair or replace the defective parts.

(1) Press the DISC cover switch and turn on the power. Then check whether or not the optical pick-up lens of the DVD drive lights.

CAUTION: Visible laser radiation when open and interlock defeated. Do not stare into Laser beam.

The optical pick-up lens lights dim:

It is caused by deterioration of the optical pick-up lens. Replace the DVD drive.

The optical pick-up lens does not light:

Check the connectors of the DVD-FFC. Also check the connection to the main PCB and to the DVD drive.

- Loose connection is found.
  Repair the connection, and then check the operation of the DVD drive again.
- The DVD-FFC is broken.
  Replace the DVD drive.
- Other than the above.
  Replace the DVD drive or the main PCB.

(2) Insert a DVD disk and turn on the power

The DVD drive does not work:

The motor of the DVD drive or the main PCB is defective. Replace the DVD drive or the main PCB.

The DVD drive works but the initializing operation of the optical pick-up lens does not start or abnormal noise sounds:

The DVD drive is defective. Replace the DVD drive.

1.4 The operation of the DVD player stops at initializing display.

If the DVD player does not work after the initializing screen is displayed, check the indication on the screen. Then repair the defect according to it.

(1) Insert a DVD disc and close the DISC cover, and turn on the power. Then check the LCD screen or use an external display (i.e. TV).

- **The message "loading" is not displayed or the operation stops at the message "Loading".**
  Since the DVD drive or the main PCB is defective, check in the following order:
  1) DVD drive
  2) Main PCB
- **The message "CHECK DISC" is displayed.**
  Check the DVD disk for fingerprints, dirt, etc.
  If the DVD disk is OK, then check the following items:

1) Check the DVD-FFC
   If a loose connection, repair the connection.
   If it is damaged, replace the DVD drive.
2) Other than above
   For other cases, replace the unit in the following order:

- DVD drive (defective optical pick-up)
- Main PCB

1.5 Image output stops during the operation.

If the image output from the media in the DVD player stops during the operation, replace the DVD drive.

1.6 No sound or abnormal sound comes out from the speakers in the DVD player.

If no sound comes out from the speakers in the DVD player, check the following:

(1) Check for moving images on the LCD screen

Check whether or not the move of image stops in halfway. If it stops, replace the DVD drive.

(2) Check the operation of the DVD driver.

Check whether or not the DVD drive works. If it stops, replace the DVD drive.

(3) Check the connection of the speakers in the DVD player.

Separate the DVD player into the top assembly and bottom assembly, and then check the connections of the speaker harnesses to LCD PCB. Then check the LCD PCB to the main PCB. If the connection is loose, repair connection. If the connector has been connected firmly, replace the main PCB or speaker.

1.7 No image or sound comes out from the external output

If any image or sound is output from the TV connected by AV cable, replace the main PCB.

NOTE: Before this test, make sure the drive works.

1.8 No sound comes out from the headphones.

If no sound comes out from the headphones, replace the main PCB.

1.9 No image or sound is output by the external input.

If any image or sound is output by AV in, replace the main PCB.

1.10 The DVD drive does not operate with the battery.

(1) Check the operation with a good battery.

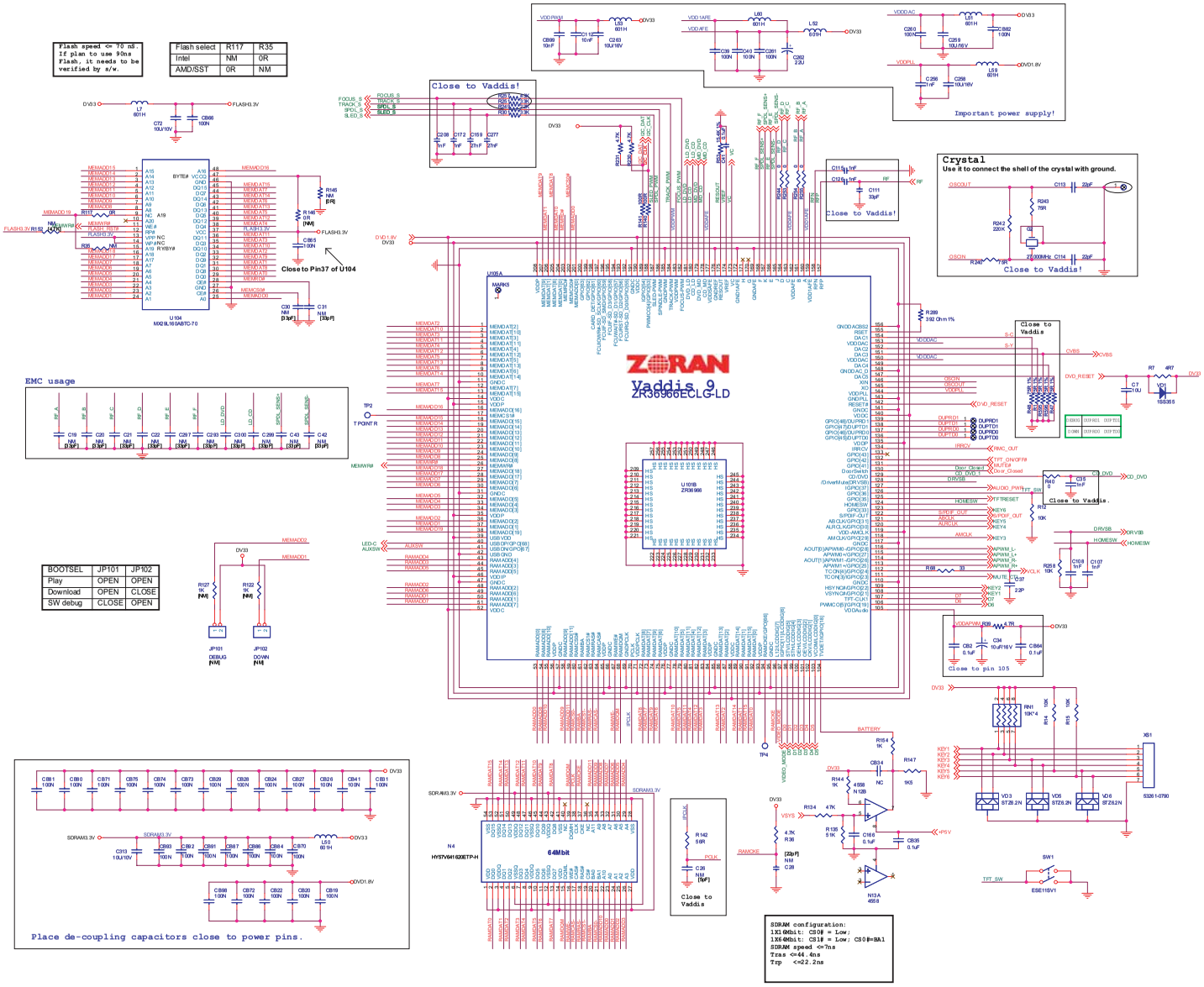
Install a good battery and make sure the LED lights up orange while the AC adapter is connected. When the LED does not light up or blinks, check the connection of the battery connector inside the DVD player. If the connection is loose, repair connection. If the connector has been connected firmly, replace the main PCB.

(2) Other than the above, replace the battery.

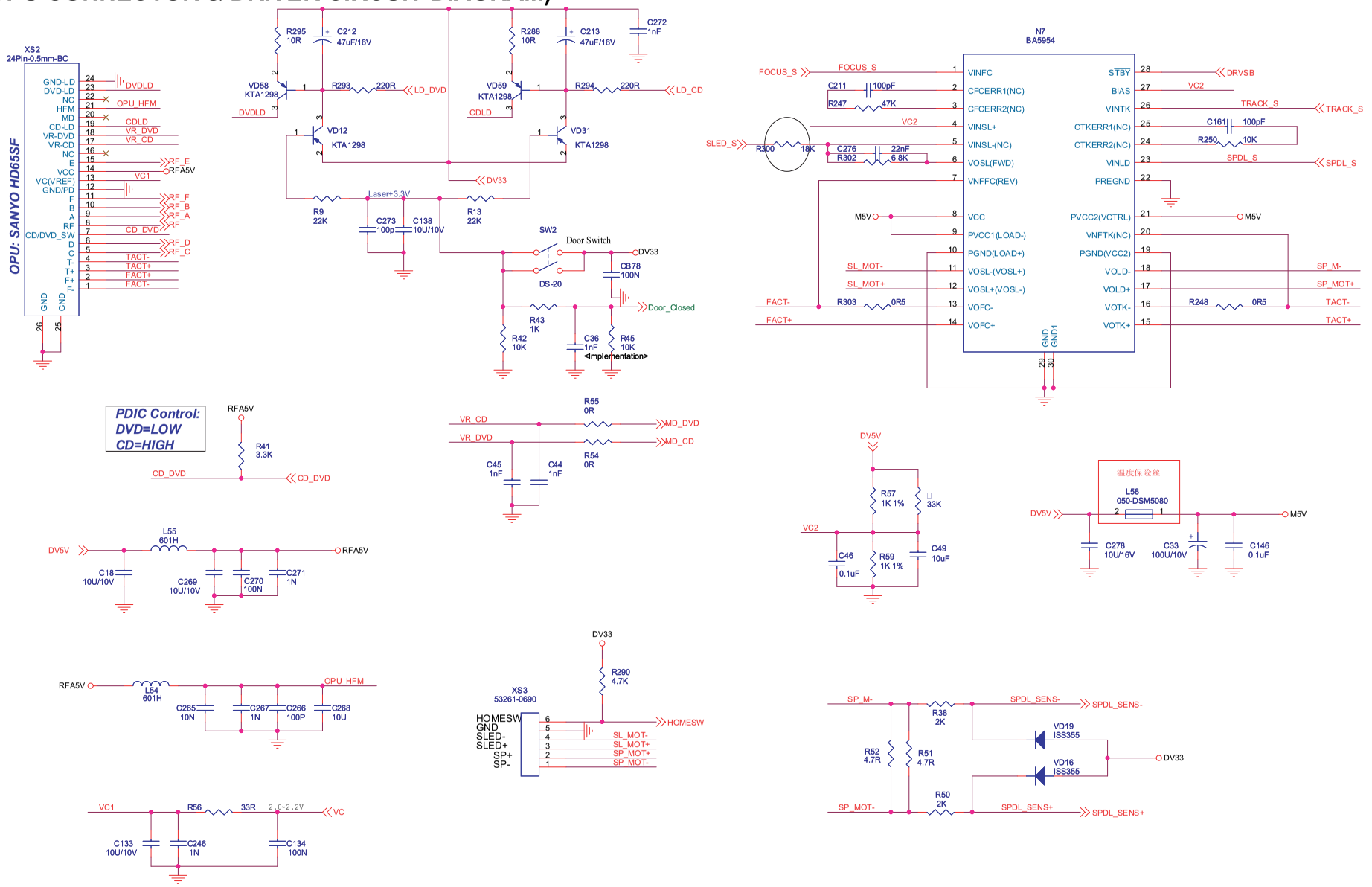
NOTE:

- For this check, use a battery which is not fully charged (because the LED does not light when the battery is fully charged.)
- Before this check, make sure other function work correctly.

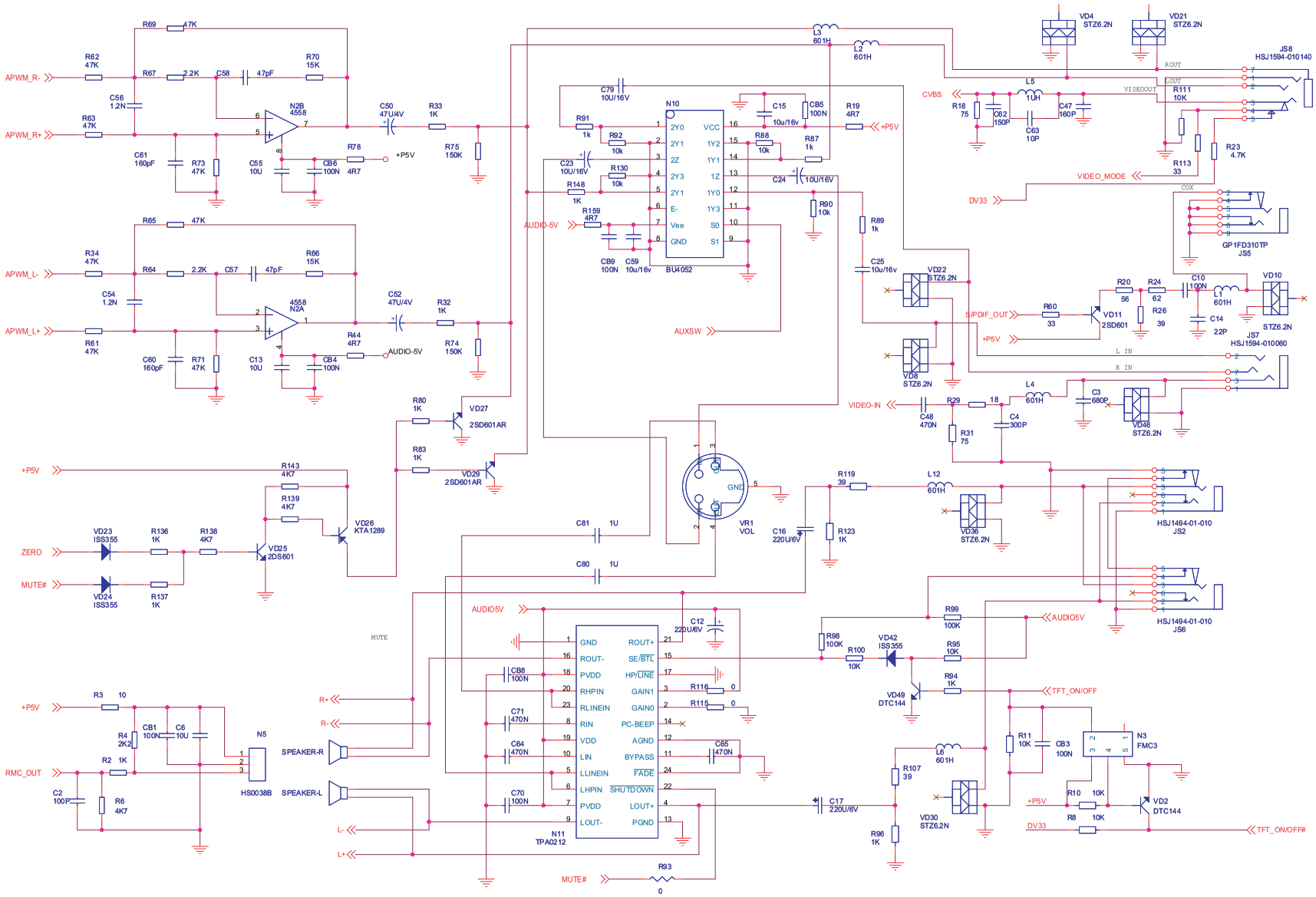
MAIN BOARD CIRCUIT DIAGRAM
(ZR36966 & SDRAM & FLASH CIRCUIT DIAGRAM)



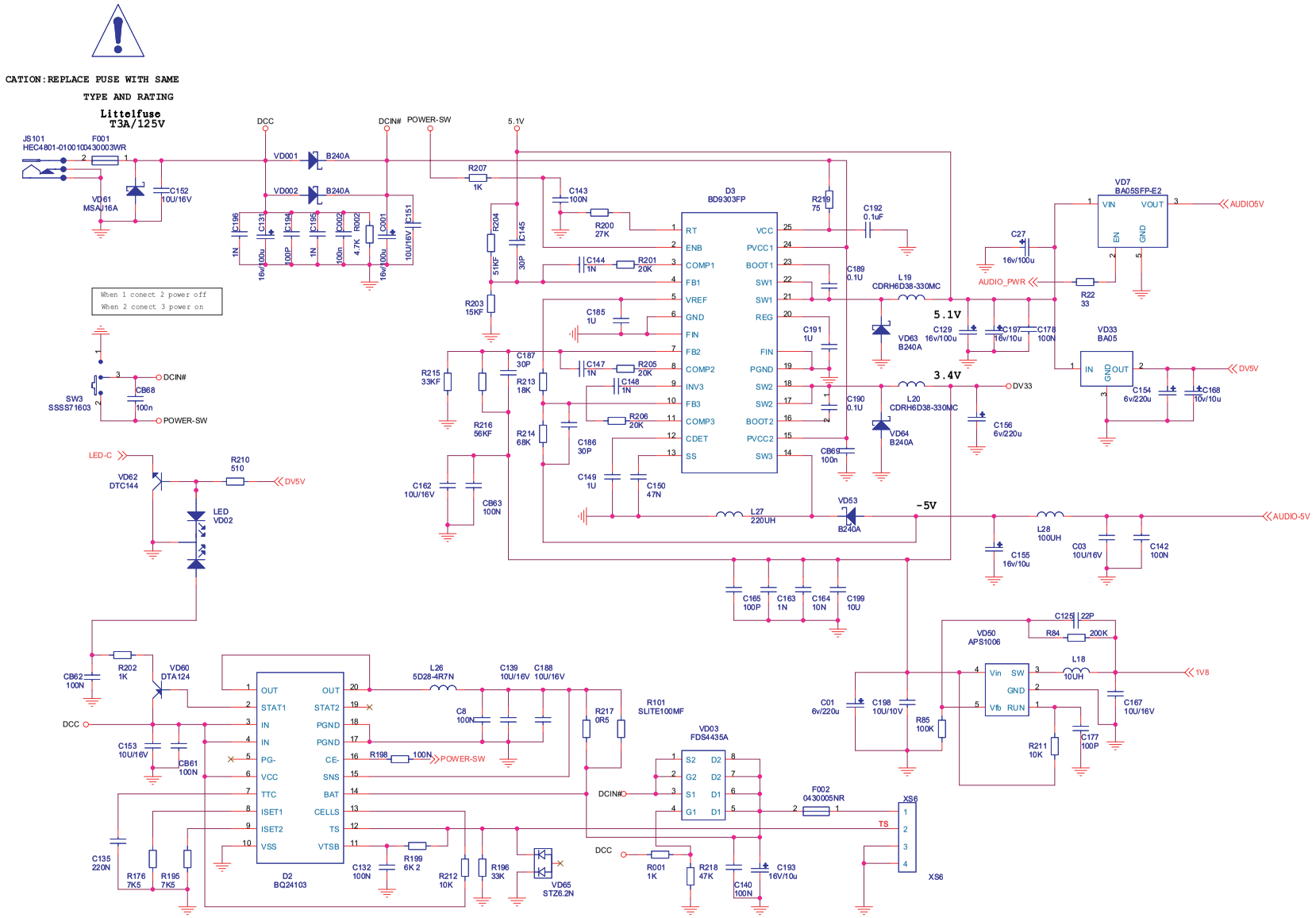
MAIN BOARD CIRCUIT DIAGRAM
(OPU CONNECTOR & DRIVER CIRCUIT DIAGRAM)



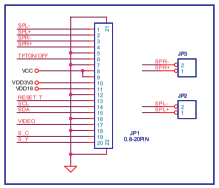
MAIN BOARD CIRCUIT DIAGRAM
(AUDIO CIRCUIT DIAGRAM)

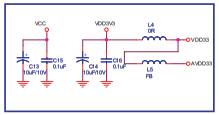


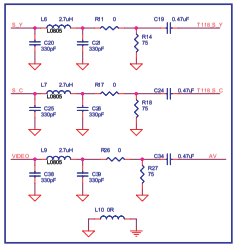
MAIN BOARD CIRCUIT DIAGRAM
(DVD POWER & CHARGE CIRCUIT DIAGRAM)

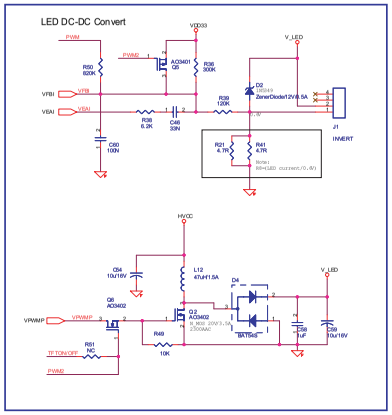


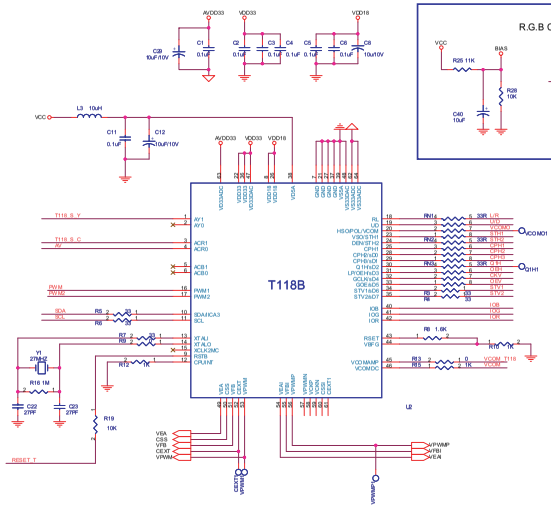
LED BOARD CIRCUIT DIAGRAM

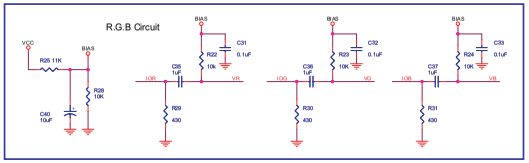


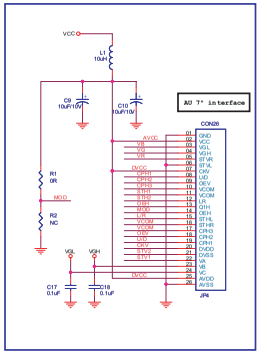


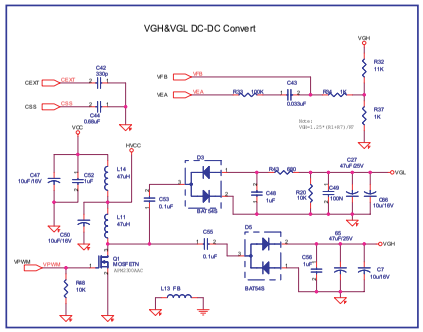


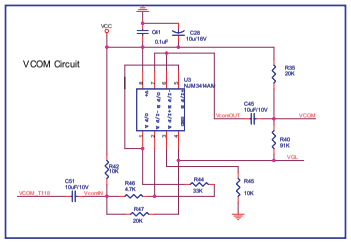




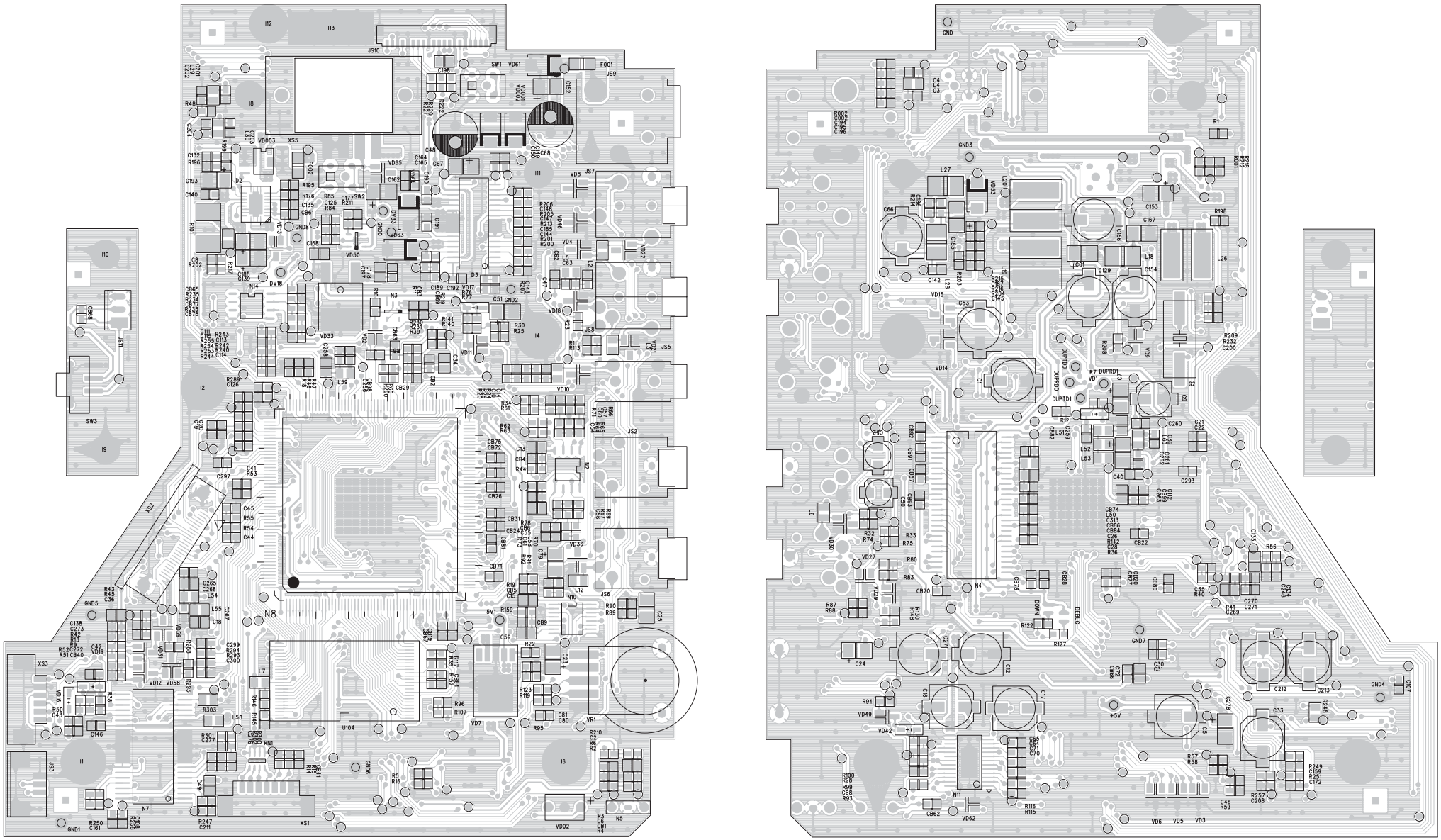




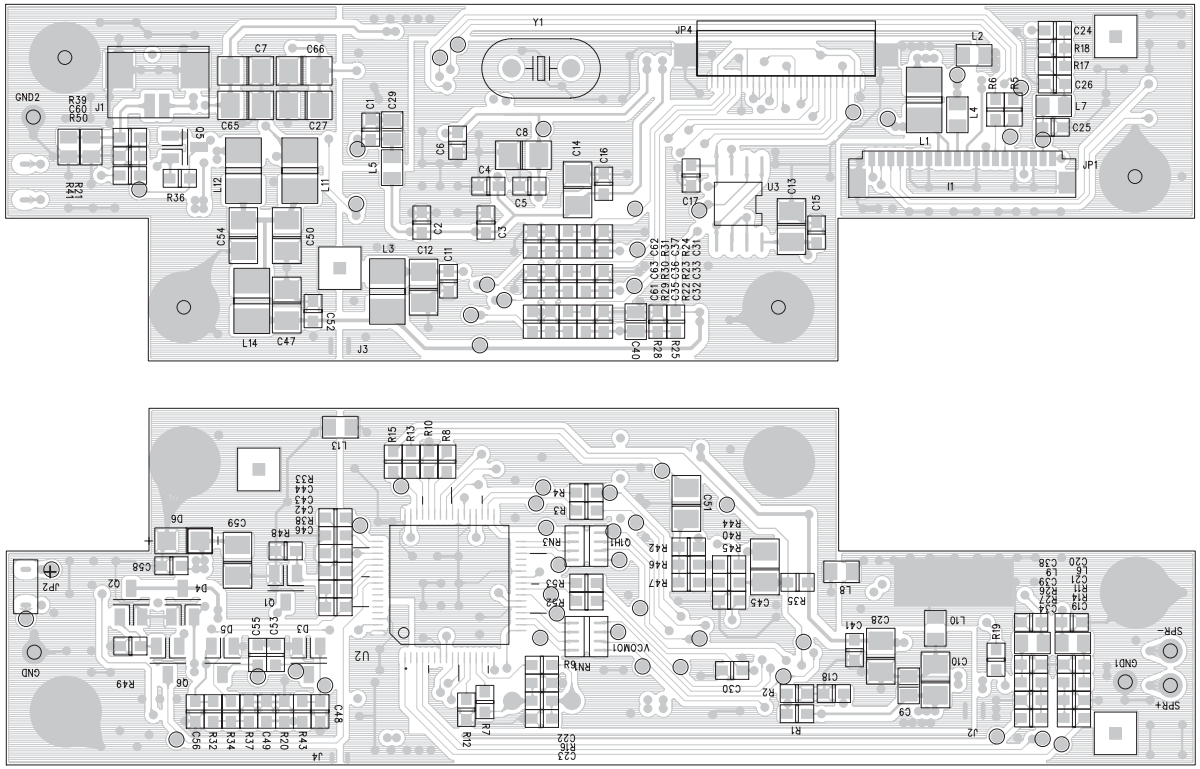




MAIN BOARD DIAGRAM

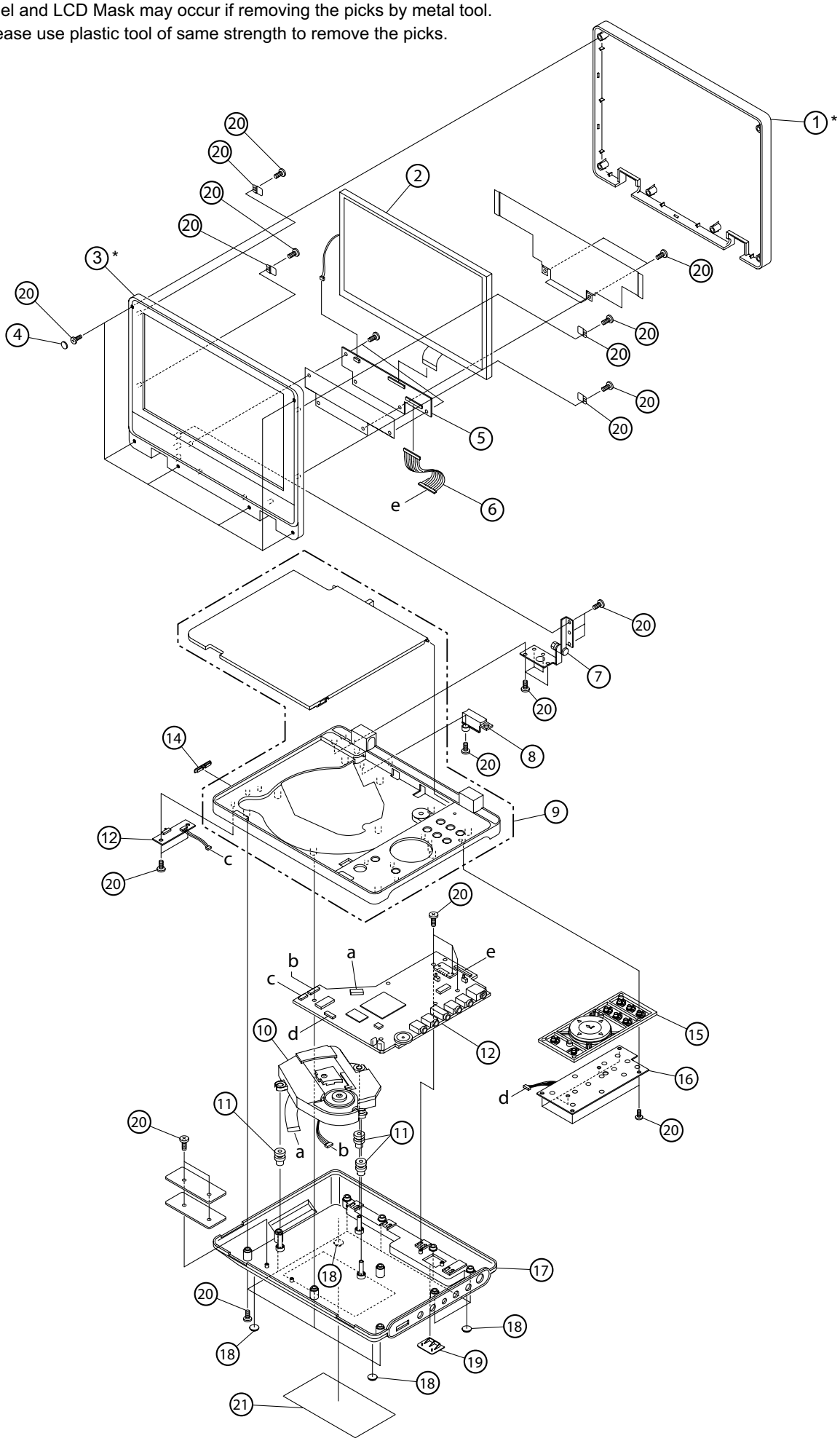


LED BOARD DIAGRAM

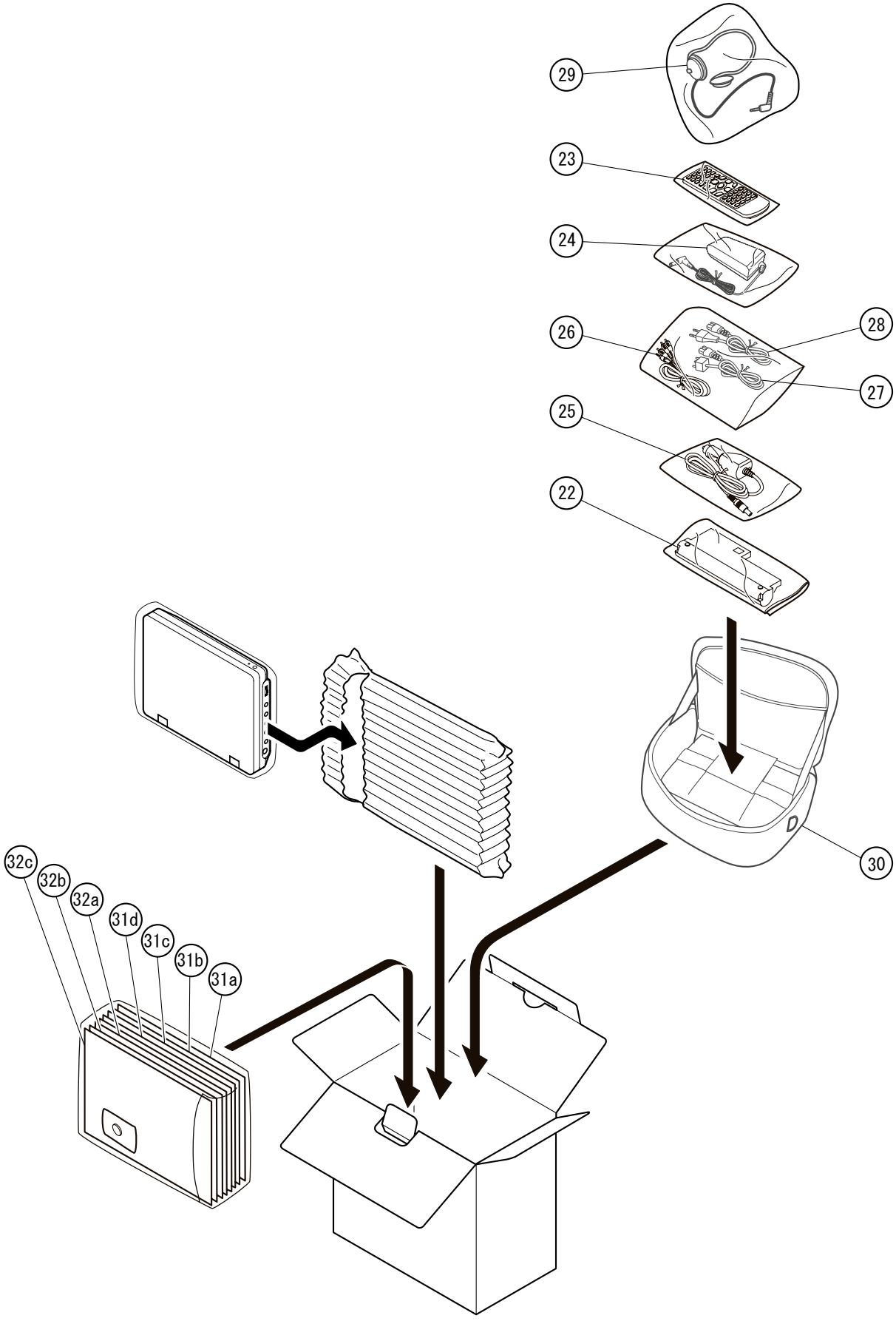


SD-P1707SE **CHASSIS ASSEMBLY**

*Note: There are 10 picks between the side of Top Panel (1) and LCD Mask (3).
Damage to Top Panel and LCD Mask may occur if removing the picks by metal tool.
(i.e. screwdriver) Please use plastic tool of same strength to remove the picks.



SD-P1707SE　PACKING ASSEMBLY



PARTS LIST: SD-P1707SE

NOTE:
When the bottom cover (17) is replaced with a new one, put a new rating label (21) on the new bottom cover.
Transcribe the following items (SERIAL NO., MANUFACTURED etc.) described on the old rating label
to the new rating label by using a permanent maker.

⚠	Loc. No.	TSB P/N	Ref. P/N	Description
	1	AH302272	e27016	Top cover ass'y
	2	AH302273	ea7398a	LCD unit
	3	AH302274	e27017	LCD mask ass'y
	4	AH302275	e27018	LCD mask pad
⚠	5	AH302276	e25108	LED PCB
	6	AH302277	e25109	Harness
	7	AH302278	eb45221	Hinge ass'y
	8	AH302279	eb45201j	Hinge cover
	9	AH302280	e27019	Sub cover ass'y
⚠	10	AH302281	e25110	DVD mecha ass'y
	11	AH301644	eb8073	Dumper
⚠	12	AH302282	e25111	Main PCB / Power Switch PCB
	14	AH302283	eb45200j	Power switch knob
	15	AH302284	e27020	Function button
	16	AH302285	e22703	Function PCB
	17	AH302286	e27021	Bottom cover ass'y
	18	AH301467	eb5430	Bottom cover pads
	19	AH301728	eb43054h	Battery slot cover
	20	AH302287	e27022	Screw kit
	21	AH302288	es13096	Rating label without serial number
⚠	22	AH302292	e25112	Battery pack with the rating label, SD-PBP70E
	23	AH301378	es06054c	Remoto Contorl, MEDR16UX
	24	AH302148	es9014c	AC Adaptor, ADPV16A
	25	AH301125	es8147	Car Adaptor, MEDC01AX
	26	AH301124	es3468a	AV Cable
⚠	27	AH301379	es2678	Power Code, UK (BS)
⚠	28	AH301380	es2684	Power Code, Euro (VDE)
	29	AH302255	es4365c	Headphone, AT-H-SH306AE
	30	AH301733	es8682a	Carrying Bag, 7inch
⚠	31a	AH302293	es15239assa	Owner's Manual, English, PX1D00000830
⚠	31b	AH302294	es15239assb	Owner's Manual, French, PXD100000840
⚠	31c	AH302295	es15239assc	Owner's Manual, Garmany, PX1D00000850
⚠	31d	AH302296	es15239assd	Owner's Manual, Turkey, PX1D00001020
	32a	AH302297	es14397	Quick Guide, Spanish, PX1D00000870
	32b	AH302298	es14397a	Quick Guide, Dutch, PX1D00000860
	32c	AH302299	es14397b	Quick Guide, Swedish, PX1D00001030

SAFETY PRECAUTION
The parts identified by ⚠ mark are critical for safety. Replace only with part number specified.
The mounting position of replacement is to be identical with originals.
The substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU,TOKYO 105-8001,JAPAN